



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,681	04/03/2000	Curtis M. Pleiss	M-8379US	4600

7590 04/09/2003

MR. STEVE VOLK  
CHAIRMAN OF THE BOARD  
DATAPLAY, INC.  
2560 55TH STREET  
BOULDER, CO 80301-5706

EXAMINER

LE, KIMLIEN T

ART UNIT	PAPER NUMBER
----------	--------------

2653

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/542,681

Applicant(s)

PLEISS ET AL.

Examiner

Kimlien T Le

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2000.
- 2a) ☐ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-37 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Art Unit: 2653

1) Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-10, and 36, drawn to an optical disk comprising: a wobble, the wobble being a sinusoidal deviation from the centerline of the groove; and a first plurality of sinusoidal marks located at zero crossings of the wobble; wherein the presence of one of the first plurality of sinusoidal marks at one of the zero crossings represents an active bit and the absence of one of the first plurality of sinusoidal marks at one of the zero crossings represents an inactive bit, a plurality of the active bits and the inactive bits representing an information field, classified in class 369, subclass 275.1.

II. Claims 11-19 and 37, drawn to method for storing data on an optical disk, comprising: creating a spiral groove with a sinusoidal deviation from a centerline of the spiral groove on the optical disk, the sinusoidal deviation having a first frequency; and creating sinusoidal marks at zero crossings of the spiral groove, the sinusoidal marks having a second frequency wherein the presence of one of the sinusoidal marks at one of the zero crossings represents an active bit and the absence of one of the sinusoidal marks at one of the zero crossings represents an inactive bit, a plurality of the active bits and the inactive bits representing an information field, classified in class 369, subclass 59.25.

III. Claims 20-26 and 32-35, drawn to a method for reading information on an optical disk, comprising: detecting zero crossings of a wobble on the optical disk; detecting sinusoidal marks in the wobble; outputting an inactive bit upon detecting one of the zero crossings and not one of the sinusoidal marks; and outputting an active bit upon detecting one of the sinusoidal marks; wherein a plurality of the inactive bits and the active bits represents an information field, classified in class 369, subclass 47.35.

Art Unit: 2653

IV. Claims 27-31, drawn to an optical disk drive comprising: a bit detector coupled to a first output line of the matched filter and a second output line of the wobble detector, classified in class 369, subclass 47.28.

2) The inventions are distinct, each from the other because of the following reasons:

3) Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed can be used with a process for reading.

Inventions I and III are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case, the product as claimed can be used with a process for storing.

Inventions I and IV are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the disk drive as claimed does not require sinusoidal marks at zero crossings. The optical disk has separate utility such as with disk drive using wobble detection for tracking servo.

Art Unit: 2653

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention III has separate utility such as with a tracking servo device. See MPEP § 806.05(d).

Inventions II and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by another materially different apparatus not including a wobble detector.

Inventions III and IV are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process as claimed can be practiced by another materially different apparatus not including a wobble detector.

4) Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

5) Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Art Unit: 2653


6) Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimlien T Le whose telephone number is 703 305 3498. The examiner can normally be reached on M-F 8a.m-5p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Korzuch William can be reached on 703 305 6137. The fax phone numbers for the organization where this application or proceeding is assigned are 703 872 9314 for regular communications and 703 872 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 3900.

Kimlien Le  
April 4, 2003



W. R. YOUNG  
PRIMARY EXAMINER